

Notice of Allowability

Application No.

10/676,907

Applicant(s)

RAO ET AL.

Examiner

Patrick J Connolly

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2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 01 November 2004.
2. ☒ The allowed claim(s) is/are 1-96.
3. ☒ The drawings filed on 30 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

GREGORY J. FOATLEY, JR.
PRIMARY EXAMINER 2877

DETAILED ACTION

Allowable Subject Matter

Claims 1-96 allowed.

The following is an examiner's statement of reasons for allowance:

As to claim 1, the prior art of record, taken alone or in combination, fails to disclose or render obvious a spectral analysis module for a high repetition rate gas discharge laser including: a primary beam-splitter in the path of the laser output laser of the gas discharge laser operative to pass the vast majority of the output beam and to reflect a first small beam portion, the primary beam splitter oriented at an angle to sufficiently reduce the fluence on the primary beam-splitter, and creating overlapping fresnel reflections in said first small beam portion; a secondary beam splitter made from a material having a damage threshold sufficiently high to tolerate the fluence created by the overlapping portion of the fresnel reflections in the first small beam portion, the secondary beam splitter reflecting the vast majority of the first small beam portion of and passing a second small beam portion; a telescoping optic in the path of the second small beam portion operative to demagnify the second small beam portion onto a first stage diffuser receiving the demagnified second small beam portion, the demagnification selected to keep the fluence in the overlapping fresnel reflections in the second small beam portion below the damage threshold of the first stage diffuser, in combination with the rest of the limitations of claim 1.

As to claim 52, the prior art of record, taken alone or in combination, fails to disclose or render obvious a spectral analysis module for a high repetition rate gas discharge laser including: a primary beam-splitting means in the path of the laser output laser of the gas discharge laser operative to pass the vast majority of the output beam and to reflect a first small beam portion,

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the primary beam splitting means oriented at an angle to sufficiently reduce the fluence on the primary beam-splitting means, and creating overlapping fresnel reflections in said first small beam portion; a secondary beam splitting means made from a material having a damage threshold sufficiently high to tolerate the fluence created by the overlapping portion of the fresnel reflections in the first small beam portion, the secondary beam splitting means reflecting the vast majority of the first small beam portion of and passing a second small beam portion; a beam narrowing means in the path of the second small beam portion operative to demagnify the second small beam portion onto a first stage diffusion means receiving the demagnified second small beam portion, the demagnification selected to keep the fluence in the overlapping fresnel reflections in the second small beam portion below the damage threshold of the first stage diffusion means, in combination with the rest of the limitations of claim 52.

As to claim 96, the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of measuring bandwidth for a high repetition rate gas discharge laser having a pulsed output including: splitting the output laser beam of the gas discharge laser and passing the vast majority of the output beam and reflecting a first small beam portion, the primary beam splitting occurring in an optic oriented at an angle to sufficiently reduce the fluence on the optic, and creating overlapping fresnel reflections in the first small beam portion; splitting the first small beam portion in an optic made from a material having a damage threshold sufficiently high to tolerate the fluence created by the overlapping portion of the fresnel reflections in the first small beam portion, the secondary splitting reflecting the vast majority of the first small beam portion and passing a second small beam portion; narrowing the second small beam portion for demagnifying the second small beam portion and diffusing the narrowed

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second small beam portion in a diffusion optic, the demagnification selected to keep the fluence in the overlapping fresnel reflections in the narrowed second small beam portion below the damage threshold of the diffusion optic, in combination with the rest of the limitations of claim 96.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

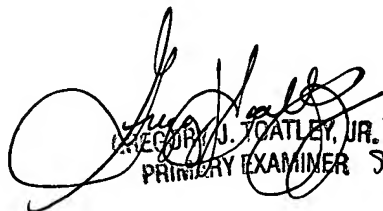
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J Connolly whose telephone number is 571.272.2412. The examiner can normally be reached on 9:00 am - 7:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J Toatley, Jr. can be reached on 571.272.2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

pjc/pjc

11.09.2009


GREGORY J. TOATLEY, JR.
PRIMARY EXAMINER 571.272.2800